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(54) Title: ISOLATED/CLONED HUMAN NT2 CELL LINES EXPRESSING SEROTONIN AND GABA

1 wk, phase



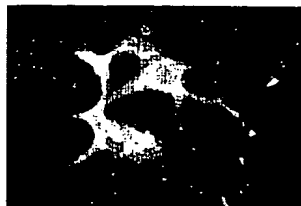
A

2 wk, phase



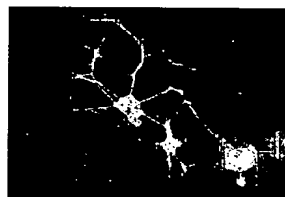
B

2 wk, 5HT



C

2 wk, 5HT



D

(57) Abstract: Human cells isolated and/or cloned from human NT2 cells for expressing serotonin (5HT) and gamma-aminobutyric acid (GABA) are disclosed. These cells can be used as cellular minipumps to release serotonin and/or GABA to treat various neurological diseases, conditions, or disorders, particularly neurodegenerative disorders and the consequences of brain and spinal cord injuries (pain/spasticity).



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